

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 85ITYOOM23/WO	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/IB2004/002455	International filing date (day/month/year) 02/08/2004	(Earliest) Priority Date (day/month/year) 08/08/2003	
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/IB2004/002455

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B60L11/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B60L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 2004/030968 A (TOYOTA MOTOR CO LTD ; MIZUNO MINOBU (JP)) 15 April 2004 (2004-04-15) page 8, line 20 - page 10, line 24; figure 1 abstract	1-5,7-18
X	----- US 6 107 691 A (GORE GERALD E ET AL) 22 August 2000 (2000-08-22) column 3, line 33 - column 8, line 29; figures 2,3,7 abstract	1,2,11, 17 7-10
Y	----- US 2003/046802 A1 (CHERNOFF ADRIAN B ET AL) 13 March 2003 (2003-03-13) page 3, paragraph 50-52 page 8, paragraph 88-91; figures 1-3,10 abstract	7-10
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

20 January 2005

Date of mailing of the international search report

03.02.05

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Internat	Application No
PCT/IB2004/002455	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/034186 A1 (MORITA HIDEKI ET AL) 20 February 2003 (2003-02-20) page 3, paragraph 35 - page 4, paragraph 47; figures 1-3c abstract -----	1-5, 11-18
A	US 6 220 380 B1 (TAKEUCHI AKISHIRO ET AL) 24 April 2001 (2001-04-24) column 2, line 43 - column 3, line 7; figures 1-3 abstract -----	1-5,7-18
A	EP 0 677 417 A (DAIMLER BENZ AG) 18 October 1995 (1995-10-18) column 2, line 11 - column 3, line 50; figures 1a-2b abstract -----	7-10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2004/002455

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-5, 7-18
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5,11-18

A fuel cell equipped vehicle comprising:
a power control unit which converts power supplied from a fuel cell and that supplies that converted power to a load, wherein high voltage wiring, which connects at least one of the fuel cell and the load to the power control unit, is provided on one side of either the left or the right side of the vehicle, and a fuel line for supplying a fuel gas to the fuel cell is provided on the other side of the vehicle, which is opposite the side on which the high voltage wiring is provided.

Further details of the first group of inventions are directed to the arrangement of a connector and of a fuel supply source.

2. claim: 6

A fuel cell equipped vehicle comprising:
a power control unit which converts power supplied from a fuel cell and that supplies that converted power to a load, wherein high voltage wiring, which connects at least one of the fuel cell and the load to the power control unit, is provided on one side of either the left or the right side of the vehicle, and a fuel line for supplying a fuel gas to the fuel cell is provided on the other side of the vehicle, which is opposite the side on which the high voltage wiring is provided.

Further details of the second invention concern the outer shape of a case for the power control unit.

3. claims: 7-10

A fuel cell equipped vehicle comprising:
a power control unit which converts power supplied from a fuel cell and that supplies that converted power to a load, wherein high voltage wiring, which connects at least one of the fuel cell and the load to the power control unit, is provided on one side of either the left or the right side of the vehicle, and a fuel line for supplying a fuel gas to the fuel cell is provided on the other side of the vehicle, which is opposite the side on which the high voltage wiring is provided.

Further details of the third group of inventions are directed to the frame structure of the vehicle.

Information on patent family members

PCT/IB2004/002455

Form PCT/SA/210 (patent family annex) (January 2004)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IB2004/002455

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6220380	B1	24-04-2001	JP	11180163 A	06-07-1999
EP 0677417	A	18-10-1995	DE	4412453 A1	26-10-1995
			EP	0677417 A1	18-10-1995